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ABSTRACT

The Exploring Careers in the Community for Gifted and Talented (ECC/GT) program is conducted in Jefferson County, Colorado junior high schools to provide an 18-week career exploration component for gifted/talented students. The program provides gifted/talented students 3 hours a day to participate in interviewing community members about their jobs, doing career research, completing an internship in a field of their choice, and completing a project or product. An evaluation of the program was conducted for the school year 1979-80, the third year of the program. Evaluation instruments used included a student background questionnaire, a career decision-making skills test, an ECC/GT skills documentation summary, an ECC student end-of-year questionnaire, a student assessment survey, a 20-minute interview with a random sample of 15 ECC/GT students, a staff questionnaire, a community instructor opinion survey, and a parent opinion survey. Grade point data were also collected from files to establish comparison groups. Results of this assessment showed that the ECC/GT curriculum was generally effective for junior high gifted and talented students. Staff, students, and community instructors were positive in their views of ECC/GT, and students showed significant posttest improvements in career planning and critical thinking skills. Based on the program's success, it was recommended that the program receive state validation as an exemplary program worthy of replication and dissemination. (KC)

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# EVALUATION OF THE ECC/GT PROGRAMS IN JEFFERSON COUNTY PUBLIC SCHOOLS

by

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# INTRODUCTION

This report describes the 1979-80 junior high school evaluation findings of the Jefferson County, Colorado Public Schools' Exploring Careers in the Community for Gifted and Talented (ECC/GT) program. This evaluation was performed by the Education and Work Program of the Northwest Regional Educational Laboratory (NWREL). Section I describes the program in relation to its purpose, educational significance, objectives, program activities and participating students. The evaluation plan and design are discussed in Section II, while the evaluation instruments are described in Section III. The findings from this year's evaluation are reported in Section IV and are organized by evaluation instruments and secondly by key questions. Section V contains the summary of results and Section VI consists of the conclusions and recommendations. Tabulations of various instruments are presented in the Appendices.

The author wishes to express appreciation to the ECC/GT learning managers for their assistance in test administration and other data collection, to Dr. Dale Moore, director of the Jeffco program evaluation unit for conducting student interviews, and especially to Nancy Tia Brown, project director, who did an excellent job of coordinating the evaluation activities across the participating schools. Appreciation is also given to Sharon Owen of the NWREL Education and Work staff, who did much of the data processing, and to Ann Rolander for an outstanding job in typing this report.

SECTION I

PROGRAM DESCRIPTION

Major Purpose

The major purpose of the ECC/GT project is to develop a career exploration program for gifted/talented junior high school students.[1] This program is intended to be incorporated as a component of a comprehensive gifted/talented program in a school or school district.

Educational Significance

A 1972 report to Congress by the U.S. Commissioner of Education stated that the gifted child is quite possibly the most neglected of all special need students, and yet that child holds great promise and potential for society. The same report continued to say that the gifted face career problems because of multiple talents/options and, therefore, a Career Education program could be of particular significance for gifted students.[2]

The ECC/GT project has a high degree of educational significance in that it provides a systematic opportunity for practicing decision-making, career planning and career exploration experiences through a curriculum which is qualitatively enriched to meet the needs and challenges of the gifted/talented student. This program is designed for individualized learning so that every student involved has the opportunity to utilize his/her advanced abilities, skills and interests and to apply these to areas of career interest and career-related problems. In addition, the program fosters independent

[1]This section is adapted from program description information provided by Nancy Tia Brown in the 1980 ECC/GT application for state program validation.
[2]Report to 92nd U.S. Congress by the Commissioner of Education, March, 1972.

learning in that students are involved in planning and evaluating their activities and are responsible for carrying through their plans and commitments both at school and in the community.

Based on the premise that many of these students will become eventual producers in a career field of their choosing, the significance of a career exploration program becomes evident: it provides students who have exceptional talents with an opportunity to explore career options and the process of career planning and decision making prior to actually having to make a career decision. This experience is beneficial not only to the students but to the community which they will soon serve.

In the ECC/GT program, the role of the teacher shifts from a dispenser of knowledge to a facilitator of learning for students. The teacher works with students and serves as a liasion with Community Instructors to negotiate student activities, projects and products. The teacher plans and helps conduct some activities such as formal guidance activities and seminars, and is also involved in meeting with students informally to discuss problems, successes and future plans. Finally, the teacher has a major role in the community development aspect of the program. He/she is involved in recruiting community persons to work with ECC/GT students, orienting Community Instructors to the program and maintaining communication with community sites and instructors.

The ECC/GT program does not incorporate traditional text book materials, except as supplementary resources for students and teachers. Some of the nontraditional materials used were initially developed for the Jefferson

County Exploring Careers in the Community (ECC) program. This is the experience-based component of the district Career Education program and is an adaptation of the Experience-Based Career Education (EBCE) program model developed by the Northwest Regional Educational Laboratory. These materials include: (1) ECC Career Cluster Handbook, (2) ECC Community Instructor Handbook, (3) Community Resources Procedural Manual, (4) ECC Curriculum Guide Activities (optional) and (5) ECC and ECC/GT Staff Training Manual. Other materials were developed specifically for the ECC/GT program. They include: (1) ECC/GT Program Management Guide (includes ECC/GT Student Identification Procedures Manual), (2) ECC/GT Curriculum Guide, (3) ECC/GT Student Handbook, (4) ECC/GT Internship Guide, (5) ECC/GT organizational forms, (6) ECC/GT slide tape show, brochure, Community Instructor Profile (materials for community development purposes) and (7) ECC/GT dissemination package. Finally, students use materials available through local libraries and community sites for their work in the ECC/GT program.

Management of the ECC/GT program differs from that of traditional classroom instruction in several ways. Initially, an identification procedure is recommended to select students for participation in this program. This procedure is reflective of the identification process for all gifted/talented programs in Jefferson County. It is a multicriteria, multi-instrumental approach which calls for teacher, parent and student input for identification. The recommended identification procedure is a four- to six-week process and should be completed prior to implementing the program. Management of the program at the classroom level is based on the teacher being a coordinator of student learning and community liaison, and students taking an active role in planning and managing their learning. At the school level,

management of the program is based around concern for space and equipment for a learning center, a block scheduling of time for participating students, qualified staff available to work with a small number of students, and transporation. Finally, management of this program involves developing and maintaining a relationship between the school and community. Plans should be made to accommodate this relationship (site recruitment, organization/record keeping of sites and student accountability system).

ECC/GT is an 18-week program. Typically, students are block scheduled into the program for three class periods a day. Forty to 50 percent of the 18 weeks is spent in the community, gathering information and exploring careers. On days when students are in the classroom, they may be planning, meeting with teacher(s), attending a guidance or seminar activity or working on independent projects.

The first two or three weeks are devoted to orientation, during which students become acquainted with each other and the program format, gather information and develop a plan for career area(s) they wish to explore, complete program competencies, do an orientation project, practice thinking and research skills and begin their first exploration project. The next seven or eight weeks focus on career exploration projects, course credit projects, guidance activities, seminars, journal writing and continued development of thinking/research skills. Students usually are working on several activities concurrently. Therefore, good planning and time management are essential. Students meet with teachers often to discuss progress, problems, etc. After several explorations, students begin seeking and planning an internship site

and project. The internship usually lasts three to four weeks and is an indepth study of a career-related problem. The final three to four weeks of the program are devoted to completing internship projects, sharing products, completing course credit projects, completing exploration projects or doing optional explorations, developing a tentative personal career plan and final evaluation.

Parents and community are actively involved in the ECC/GT program. Parent involvement include: input in the identification process, giving permission for student enrollment, helping students decide upon career areas for study, helping with transportation (when appropriate), serving as Community Instructors (if qualified and willing) and informally helping students as they progress through the program. Community involvement is a major focus of the program. Community persons are requested and recruited to serve as seminar speakers, competency certifiers, guides for exploration and mentors for student internships. The community is called upon to share sites, resources and areas of expertise with students.

Student Objectives

The ECC/GT students were expected to demonstrate progress in ability to:

- Describe and analyze lifestyles associated with a career field of interest
- Analyze aspects of organizational structure in a career field of interest and apply findings to personal career plans
- Apply a creative problem solving process to a career-related problem in a career field of interest and develop a product as a result of this experience

- Develop a personal, tentative career plan
- Apply critical and creative thinking skills to the content areas of focus in the program
- Use the interview and library resources as research techniques
- Increase knowledge of career opportunities available
- Increase oral communication and presentation skills
- Manage their own time
- Adapt to unforeseen circumstances and cope with unexpected occurrences
- Grow in self-awareness

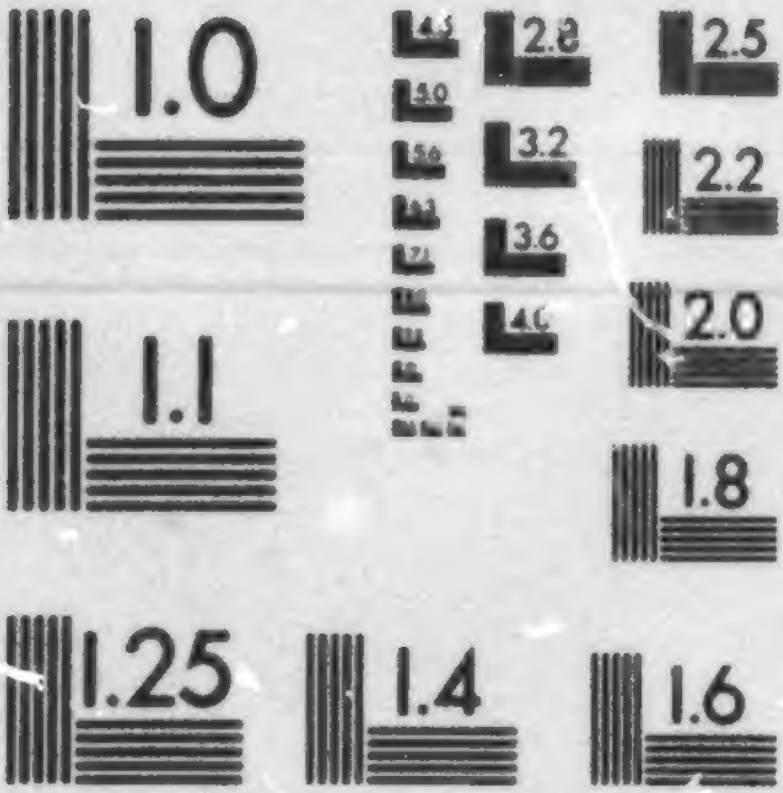
The first six objectives are unique to the ECC/GT program while the last five are common with the standard ECC program.

Program Activities

In ECC/GT, identified students have an opportunity to expand their educational experiences beyond the classroom. They learn by doing, and the people and places of the community (including the school) become resources for learning. Students have an opportunity to explore careers and practice decision-making and career-planning skills before actually needing to make career decisions. Students have an increased involvement in and responsibility for their learning through input in planning and evaluating their activities, contacting and working with adults in the community and managing their time. Students have a chance to use their abilities and apply school-acquired skills in actual work settings. This program is flexible enough to meet individual needs and yet structured enough to meet program objectives.

The unique student learning activities include:

- Spending 40-50 percent of program time in the community exploring careers and career-related problems
- Competencies (program survival skills)--using public transportation, interviewing skills, telephoning skills, use of audio-visual equipment
- Seminars--persons from the community are invited into the classroom to discuss career-related issues with students
- Guidance--a systematic guidance strand is built into the program. This involves structured group activities with teachers and/or counselors and informal small group or individual meetings related to personal and career development
- Exploration projects--students complete four exploration projects which include organized career explorations (12-15) in the community
- Internship--indepth, career-related problem solving experience with community person serving as a mentor; three to four weeks in length; individualized projects developed by individual students or small groups
- Course credit projects--alternatives are available for students to earn academic credit through independent study; individualized projects
- Continued development of critical creative thinking skills and research skills (inteview, library research) as applied to career education content (i.e., lifestyle, organizational structure, future trends and comparison/contrast study
- Opportunity to develop a tentative, personal career plan




MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

Program Participants

The 1980 ECC/GT program served the needs of gifted and talented students in three junior high schools in Jefferson County--Wheatridge, Bell and Ken Caryl. A comparison group of gifted students not in ECC/GT from Creighton served as the comparison group. Table 1 below shows the distribution of students by school, grade level and sex. As can be seen in Table 1, the majority of ECC/GT students were eighth grade males, while the comparison group contained more ninth graders and females.

TABLE 1

NUMBER OF ECC/GT STUDENTS BY GRADE LEVEL AND SEX FOR EACH SCHOOL

| | 8th Graders | | 9th Graders | |
|---|---|---|---|---|
| School | Male | Female | Male | Female |
| Wheatridge | 9 | 0 | 2 | 0 |
| Bell | 2 | 1 | 5 | 3 |
| Ken Caryl | 4 | 2 | 0 | 0 |
| Creighton (Comparison Group) | 2 | 5 | 7 | 5 |

## SECTION II

## EVALUATION PLAN AND DESIGN

### Purpose

The 1979-80 evaluation plan is based on evaluation and program development experiences from the two prior years and reflects the shift in objectives and curriculum implemented in the 1980 Spring semester. In the two prior years, the evaluation covered the development of an operational model for gifted and talented junior high students, student selection criteria, recruitment and training of community mentors, dissemination and program operations, as well as student outcomes. The emphasis on the 1980 evaluation has been on assessing the newly developed student outcomes.

### Evaluation Responsibilities

The 1980 evaluation of ECC/GT was intended as a joint activity involving both the evaluation unit of NWREL's Education and Work Program and the staff at Jefferson County. Staff from both organizations met for several days in December 1979 to develop and refine the student outcome objectives and agree on a working relationship for this year. It was agreed that NWREL would provide the evaluation design, develop or revise instruments and concentrate on student assessment. The Jeffco staff administered the evaluation instruments, contacted comparison group students and conducted surveys of parents, community instructors and staff (using last year's instruments as a base). The Jeffco evaluation staff also conducted interviews with a random sample of 15 ECC/GT students to gather supplementary data.

### Student Assessment Approaches

The 1978-79 evaluation of ECC/GT included some instruments that proved not to be sensitive to program changes for gifted students and some that were quite

useful. Instruments not found to be sensitive to program changes were the Student Attitude Questionnaire, Perceived Competence Scale, Something About Myself and Adult Performance Level. Some of the above instruments, while appropriate to the outcomes of the program, failed to show pre-post growth because students scored quite high on the pretest.

A revision of the ECC/GT objectives in December 1979 caused us to identify some objectives as specific to gifted students and other objectives as appropriate to both regular and gifted students. The second set of objectives are referred to as maintenance objectives and our hypothesis for these objectives is that ECC/GT students will perform at the same, but no greater, level than students in the standard ECC program.

Evaluation Design

The basic evaluation design used in the 1979-80 summative evaluation of the ECC/GT was a traditional experimental-control design involving pre- and posttest measures. This design was selected as the most vigorous one available to help rule out rival hypotheses that changes occurring in the ECC/GT students would have occurred without program participation simply because the students were gifted.

The basic design was supplemented by use of baseline data collection. Prior year grade point averages (GPA) were collected and analyzed to establish the equivalence of the ECC/GT and gifted comparison groups. The results supported that both groups were gifted and were not significantly different from each other on GPA. Educational and occupational aspirations of the two groups were also analyzed at pretest time and verified the equivalence of the two groups. Both groups were composed of 8th and 9th grade GT students. Thirty-seven

percent of the ECC/GT students were 9th graders whereas 65 percent of the comparison group were 9th graders. Therefore, if any baseline differences were operating, they favored the comparison group.

The basic design was also supplemented with: 1) on-site observations and informal student interviews by the evaluator, 2) written survey questionnaires in May to staff, parents and community resource people, 3) a structured interview by the district's coordinator of program evaluation with a random sample of 15 ECC/GT students and 4) a one day staff debriefing in June to obtain staff recommendations for program improvement.

## SECTION III

## DESCRIPTION OF THE EVALUATION INSTRUMENTATION

This section contains a brief description of the student and program evaluation instruments used in the 1979-80 evaluation of ECC/GT. Many of the instruments were revised based on last year's evaluation findings.

### Student Background Questionnaire

Upon entry into ECC/GT, students were asked to complete this questionnaire. It obtains information about students' previous employment history, short- and long-range educational and work goals and reasons for wanting to enter ECC/GT. This information was used to describe students entering the program and also to identify such things as their educational and occupational aspirations, which were compared with their responses at the end of the semester. An abbreviated form was also used with the gifted comparison group students.

### Career Decision-Making Skills

This test from the College Board Career Assessment Program takes one hour to administer and assesses a variety of skills needed by a person in making effective career decisions. Since the current form of the test is not designed for pre- and posttest administration, the instrument was used only on a posttest basis with ECC/GT and comparison group gifted students not in an ECC-type program.

### ECC/GT Skills Documentation Summary

During the 1979-80 school year the ECC/GT program modified and refined its objectives and further developed the curriculum to accommodate the new objectives. In order to see how the major program instructional strategies

related to these outcomes, a matrix was prepared by the evaluator with six learning strategies across the top and 14 student outcomes going down the page. Learning managers were asked to complete the matrix for each student by checking off which objectives the individual had mastered through which strategies. At a program level, this helps to document the interrelationship between program objectives and processes.

ECC Student End-of-Year Questionnaire

This questionnaire is designed to: (1) follow up on questions asked on the Student Background Questionnaire administered at the beginning of the program to assess any change that may have occurred during the semester, (2) assess student knowledge about obtaining a job and related information and (3) collect data on student reflections about their program experiences. Open-ended items have been added this year to assess problem solving and career planning outcomes of the program.

Student Assessment Survey

This instrument was developed and administered on a pre-post basis to address some of the objectives found in the ECC/GT. It consists of a 25-item career exploration scale, a 19-item oral communication attitudes scale and a 24-item responsibility scale built around self-responsibility as well as responsibility towards others.

Student Interview

A 20-minute structured student interview was developed by the evaluator and project director and used by a district evaluator, Dr. Dale Moore, with a random sample of 15 ECC/GT students. The interview assessed students' interview skills, the internship experience and time management.

Staff Questionnaire

This questionnaire asked the staff to rate the importance and perceived effectiveness of learning strategies used in ECC/GT. It also asked questions about factors contributing to the program or limiting its success, changes they would suggest and areas in which they feel students made greatest and least growth. Because the staff work with the program daily, their understanding of strengths and weaknesses and their recommendations for change are important to consider.

Community Instructor Opinion Survey

Since participating employers are an essential aspect of ECC/GT, their attitudes are valuable. This questionnaire is designed to determine how employers became involved with ECC/GT, how they judged the progress of students with whom they worked and how they perceived program operations and their roles.

Parent Opinion Survey

This instrument is designed to assess parents' perceptions of ECC/GT strengths and weaknesses, benefits of the program to their son or daughter and the extent of their own involvement.

In addition to the above instruments, prior year student grade point average was collected from the files to establish the extent to which the participant and comparison group students were similar in ability for the purpose of comparing their results.

## SECTION IV

## EVALUATION FINDINGS

The evaluation findings in this section are organized in two ways for the convenience of the reader. First, the results are organized around the findings for each evaluation instrument. Secondly, results are organized around the student and program objectives. In this case, information related to an objective is integrated across various evaluation instruments.

### Evaluation Instrument Findings

1. Baseline Data

   In order to assure comparability of the ECC/GT participants and GT comparison group, the cumulative grade point average (GPA) at the beginning of the Spring semester was obtained from each student's record. Table 2 contains the GPA data. The results of a t-test indicate no significant difference between the two groups on GPA.

TABLE 2

PRIOR YEAR GRADE POINT AVERAGE FOR ECC/GT AND GT COMPARISON GROUP STUDENTS

| ECC/GT | | Comparison Group | | | |
|---|---|---|---|---|---|
| Mean | S.D. | Mean | S.D. | t | p |
| 3.68 | .35 | 3.57 | .46 | .91 | NSD |

2. Student Background Questionnaire

At the beginning of the semester the Student Background Questionnaire was administered to 21 ECC/GT students and to 17 comparison group students. As shown in the tabulations to this instrument in Appendix A, over half of the students in each group had worked for pay outside their home on a regular basis. The vast majority of each group planned to attend a four-year college or university the year after completing high school, with many of them eventually planning to attend graduate or professional school. Most of the students aspired to business or professional careers, especially in the realistic area (such as an architect) and artistic (such as a musician). Major reasons listed by students for joining ECC/GT were to learn about careers and to prepare for a job.

3. Career Decision-Making Skills

The Career Decision-Making Skills section of the College Board Career Assessment Program is intended for high school seniors. However, since an indirect objective of ECC/GT is to increase student decision-making skills and the students are gifted, this instrument was used in May on a posttest only basis to determine any differences between ECC/GT and GT comparison group students. As shown in Table 3, the comparison group scored slightly higher on this test than the ECC/GT group, but the difference was not statistically significant. On one subscore of the test, defining the problem, the comparison group scored significantly higher than the ECC/GT students.

TABLE 3

POSTTEST RESULTS ON THE CAREER DECISION-MAKING SKILLS TEST OF THE CAREER SKILLS ASSESSMENT PROGRAM FOR ECC/GT AND GT COMPARISON GROUPS

| | GROUPS | | | | | |
|---|---|---|---|---|---|---|
| | ECC/GT (N=16) | | GT Comparison (N=12) | | | |
| SUBTESTS | Mean | S.D. | Mean | S.D. | t | p |
| Defining the problem | 2.78 | 1.06 | 3.67 | .78 | -2.64 | .01 |
| Establishing an action plan | 9.90 | 1.60 | 9.80 | .72 | .30 | |
| Clarifying values | 6.56 | 2.01 | 7.80 | 1.14 | -2.07 | |
| Identifying alternatives | 6.80 | 1.25 | 6.80 | 1.13 | 0 | |
| Discovering probable outcomes | 10.89 | 1.91 | 12.17 | 1.70 | -1.90 | |
| Eliminating alternatives systematically | 4.10 | 1.18 | 5.80 | 1.27 | -1.60 | |
| Starting action | 3.30 | .69 | 3.42 | .90 | .27 | |
| Total | 45.40 | 6.78 | 49.50 | 4.87 | -1.91 | |

Based on t-tests between the two groups, the only significant difference found was on defining the problem, where the comparison group outperformed the ECC/GT students.

4. ECC/GT Skills Documentation Summary

In June, the learning managers completed the skills documentation matrix, indicating for each student the outcome areas in which growth had been noted and the instructional strategy associated with that growth. Six instructional strategies were included: guidance activities, seminars, exploration projects, career plan, internship project and course credit projects. The matrix is displayed in Appendix B. It is interesting to note that self-awareness and critical thinking are the two most frequently noted outcomes. Students' exploration projects and the internship project appear to be the major delivery strategies for most student learning outcomes. The matrix can be an especially useful tool for uncovering the project components most frequently leading to each of the student outcomes. For example, the course credit projects are judged particularly useful for helping improve students' synthesis and analysis skills and for improving library research skills.

5. Student End-of-Year Questionnaire

The Student End-of-Year Questionnaire was completed by ECC/GT students and a reduced version of the instrument was used with the comparison group. Students again expressed high educational and career aspirations. However, in comparison with the preprogram survey, students' career interests appeared more diversified using Holland's occupational categories as a basis.

On a four-point scale assessing students self-reported knowledge of steps to prepare for a career of interest, the ECC/GT students showed significant gain over the semester, while the GT comparison group showed no change. See Table 4.

TABLE 4

PRE- AND POSTTEST SCORES OF ECC/GT and comparison group students on KNOWLEDGE OF STEPS TO PREPARE FOR A CAREER OF INTEREST

| | ECC/GT Students (N=21) | | | | GT Comparison Students (N=17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | t* | p | Mean | S.D. | t | p |
| Pre | 2.76 | .77 | 2.01 | .05 | 2.65 | .93 | .57 | NSD |
| Post | 3.19 | .75 | | | 2.53 | .72 | | |

When asked what aspects, if any, of the learning experience this year influenced your career choice, 71 percent of the ECC/GT versus 33 percent of the comparison group indicated talking with people who work at the jobs and 67 percent of the ECC/GT versus 22 percent of the comparison group indicated experiences in observing or trying out the jobs. Forty-eight percent of the ECC/GT as compared with 33 percent of the comparison group students indicated a shift in career interests over the past year. Eight of the ECC/GT students versus only one comparison student cited experience in observing or trying out jobs as the basis for career shifts.

Students in both groups were asked how helpful they felt their ECC/GT or regular GT programs had been in assisting them with 26 various learner outcomes, such as solving problems logically.

*Based on paired t-tests, the gains made by ECC/GT students were statistically significant while the GT comparison group scores actually decreased slightly. Scores were based on a four-point scale from "do not know where to begin" to "steps quite clear."

Table 5 shows those ratings in which there was a significant difference between the two groups. Of the eight outcomes, seven favored ECC/GT students. The GT comparison group students rated their experience higher than the ECC/GT students in helping them use higher-level thought processes to solve problems.

Only the students in ECC/GT were then asked to rate the usefulness of 11 components of their program. The components rated most useful were the community internship and the career explorations. Those rated least useful were student journals and the guidance activities. In comparison with the regular junior high curriculum, ECC/GT was rated highest in providing students an opportunity to learn about careers. The program was rated higher than the regular school program in motivating students to learn.

Some open-ended items were added to last year's version of the Student End-of-Year Questionnaire to assess students' knowledge of community resources, problem solving skills, career planning, understanding of characteristics of people successful in a career field of interest and likely changes over the next 20 years in a career field of interest. As shown in Table 6, ECC/GT students scored significantly higher in knowledge of specific community resources, number of alternative problem solutions generated and ability to describe one's occupational plans. They scored marginally higher (at the .11 level) in ability to identify important changes over the next 20 years in a career area of interest to them.

TABLE 5

STUDENT RATINGS OF HOW HELPFUL THEIR ECC/GT OR REGULAR GT PROGRAM WAS IN ASSISTING THEM WITH SELECTED OUTCOMES

| | ECC/GT (N=21) | | Regular GT (N=15) | | | |
|---|---|---|---|---|---|---|
| OUTCOMES | Mean | S.D. | Mean | S.D. | t | p |
| Learn how society's values, the government and the economy affect the world of work | 3.57 | 1.25 | 2.00 | 1.00 | 4.19 | .001 |
| Learn the basic skills necessary for the careers that interest you | 3.75 | 1.41 | 2.27 | 1.34 | 3.18 | .01 |
| Understand the democratic process | 3.00 | 1.52 | 1.87 | 1.13 | 2.57 | .02 |
| Learn how to find and keep a job | 3.19 | 1.44 | 2.07 | 1.22 | 2.53 | .02 |
| Use higher-level thought processes to solve problems | 3.48 | 1.33 | 4.33 | .82 | -2.39 | .02 |
| Know what level of basic skills proficiency is required in the jobs of interest to you | 3.52 | .87 | 2.47 | 1.60 | 2.33 | .03 |
| Learn how your interests and abilities fit into potential careers (career planning) | 4.19 | .98 | 3.20 | 1.42 | 2.33 | .03 |
| Learn what to look at when considering a job | 3.71 | 1.31 | 2.60 | 1.50 | 2.31 | .03 |

TABLE 6

MEANS AND STANDARD DEVIATIONS FOR ECC/GT AND GT COMPARISON GROUP STUDENTS ON SELECTED POSTTEST PERFORMANCE MEASURES

| | ECC/GT (N=21) | | GT Comparison (N=16) | | | |
|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | t | p |
| Knowledge of specific community resources for problem solving | 3.29 | 2.70 | 1.63 | 1.89 | 2.20 | .05 |
| Ability to generate alternative solutions to problems | 4.62 | 1.20 | 3.69 | 1.45 | 2.08 | .05 |
| Ability to describe one's occupational plans | 2.76 | .54 | 2.21 | .98 | 1.92 | .07 |
| Ability to identify important changes over the next 20 years likely to occur in an occupational area of interest | 1.57 | .75 | 1.14 | .77 | 1.63 | .11 |

Finally, students were asked to identify the two greatest weaknesses and strengths of ECC/GT. The two weaknesses most frequently identified by ECC/GT students were lack of a variety of job sites to meet students' interests and the fact that some students were not adequately prepared to work on their own. The most frequently mentioned strengths were learning about "real life" situations and having the program as a good alternative to the regular school program. These two questions were also asked of the comparison group students, since they had at least "hear-say" knowledge of ECC/GT. They more frequently included the quality of the staff as a strength. As a weakness, they were generally unaware of the perceived lack of variety of job sites to meet students' interests.

6. Student Assessment Survey

The Student Assessment Survey was used as a pre- and posttest measure for both the ECC/GT and comparison group to assess responsibility, oral communication and career exploration experiences. The responsibility scale was taken from an assessment instrument developed by Dr. Diane Hedin at the Center for Youth Development at the University of Minnesota. The other two scales were developed by Dr. Owens. Since there were no significant differences between groups on pretest scores, group t-tests were run on posttest scores. Significant differences favoring the ECC/GT students were found only on the Career Exploration Scale. On the other two scales, ECC/GT students scored only slightly higher, as can be seen in Table 7.

TABLE 7

POSTTEST MEANS AND STANDARD DEVIATIONS FOR ECC/GT AND COMPARISON GROUP STUDENTS ON THE STUDENT ASSESSMENT SURVEY

| | ECC/GT Group (N=21) | | Comparison Group (N=16) | | | |
|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | p | p |
| Responsibility Scale | 74.38 | 9.65 | 73.38 | 8.36 | .34 | |
| Oral Communication Scale | 75.40 | 10.74 | 71.44 | 9.43 | 1.18 | |
| Career Exploration Scale | 89.90 | 20.18 | 67.59 | 19.83 | 3.42 | .01 |

7. Student Interview

A random sample of 15 ECC/GT students was selected and students were interviewed by the coordinator of the district's program evaluation unit, Dr. Dale Moore. Questions dealt with student experiences in interviewing adults, their internship and time management. The interviews were individually tabulated by Dr. Moore and sent to NWREL for summary. A summary of responses is presented in Appendix D.

Two-thirds of the ECC/GT students had not had experience in conducting interviews prior to participating in this program. Students felt the most useful interview questions they asked of employers dealt with the effects of their careers on their family life. Least productive questions dealt with salary. Thirteen of the fifteen students felt that participating in ECC/GT had helped them organize their time more effectively. One said, "It might have helped a little but not much," and the other said, "I could organize time before this." It helped especially in planning their day's activities and arranging transportation.

8. Staff Questionnaire

The ECC/GT staff questionnaire was completed by the four learning managers in June and is tabulated in Appendix E. Staff were asked to rate how important and, separately, how effective they felt each of 17 ECC/GT learning activities was. Activities rated of highest importance were the community internship and critical thinking and creative problem solving processes. Those rated least important were the orientation project, negotiating course credit and course credit projects. Those rated most effective were processes for student accountability, guidance activities

and the student competencies. Least effective were processes for creative problem solving.

Staff next rated how helpful they felt the program had been in helping students achieve 26 student outcomes. Student outcomes rated as having been helped most by ECC/GT were time management, communicating comfortably with adults and helping students understand more about themselves. Rated as least helpful were learning basic skills necessary for careers of interest to students and learning how to find and keep a job.

Several staff saw the community resource people as being primary factors leading to the success of the program. A variety of obstacles were cited, but none by more than a single staff person.

9. Community Instructor Survey

In May, a Community Instructor Survey was mailed to 100 employers participating in the ECC/GT program. By June 12, responses had been returned by 34. Of the employers responding to the survey, 90 percent plan to continue participating in the ECC/GT program and one indicated uncertainty. The majority of employers (76 percent) indicated they felt students they worked with have benefited by being at their site. Seventy percent felt employees at their site reacted positively to their agency's participation in ECC/GT and only one indicated generally negative reactions. The other seven indicated mixed reactions. Ninety percent of the employers indicated they would recommend to another employer or colleague that he or she become involved with the program, and only one said no.

Employers perceive the greatest strengths of ECC/GT to be the opportunities for students to learn about a variety of careers and about real life situations. Program weaknesses mentioned by the employers are the lack of adequate feedback about students, that some students were not adequately prepared to work on their own and that the program may be too difficult or technical for some students.

## Evaluation Questions

This section of the evaluation findings is organized around the evaluation questions proposed in the NWREL evaluation plan. These questions center around the ECC/GT operational curriculum, program operations and student learning outcomes.[1] For the convenience of the reader, each question will be stated in underlined form and followed by the related findings.

1. Is the revised ECC/GT curriculum appropriate for junior high gifted and talented students?

   Interviews by the evaluator with two principals and with some of the ECC/GT students indicated the ECC/GT curriculum is generally appropriate and challenging to gifted and talented students. The internship component was talked about most favorably by the students. They also indicated that career explorations were useful in learning about various fields of work and the effects different careers have on people's life styles. Students felt the focus on learning the organizational structure through career exploration interviews was generally not productive or helpful. At least one learning manager agreed. A concern expressed by some of the students was the excessive work load of ECC/GT in addition to

[1]Student selection procedures were not a focus for the 1979-80 evaluation since extensive attention was devoted to this area in the evaluations conducted in the two previous years.

their regular classes. Four of the six students interviewed cited examples of having to work beyond midnight several times to meet program deadlines on some reports.

2. What adjustments would strengthen the curriculum?

During the June staff debriefing, staff indicated that the internship guide developed this year was very helpful. They recommended that additional sample projects and products should be incorporated into the revised edition to help students understand the kinds of projects and products that are expected, and to help them create their own. This is consistent with student recommendations for sample projects to give them a better idea of what is expected. Several students indicated a period of groping because they were not clear on what was expected from the internship.

Some students expressed concern that they were expected to collect too great a variety of information from the career exploration interviews with employers. This led to superficial interviews that attempted to cover too many things. They suggested being given the option of focusing on a fewer number of topics in their career exploration employer interviews, thus allowing them to probe on points of interest. Some students also expressed a preference for doing a career exploration report after completing several employer interviews, so they could compare information collected from several adults.

3. Overall, how did staff, students, community instructors and parents view the ECC/GT program?

Staff, students, community instructors and parents were quite positive in their views of ECC/GT. Parent responses, tabulated in Appendix F, indicate that 85 percent of the parents surveyed felt their son or daughter liked ECC/GT better than their past school experiences. Parents rated student experiences in learning about a variety of careers and in working with adults as the two greatest benefits of participation in ECC/GT.

On the staff questionnaire, the learning managers rated the ECC/GT program as most helpful in assisting students with time management, communicating comfortably with adults and helping students understand more about themselves. Rated as least helpful were learning basic skills necessary for careers of interest to students and learning how to find and keep a job. They considered the community internship and critical thinking and creative problem solving processes as the most important components of the program.

The ECC/GT students, on the Student End-of-Year Questionnaire, felt the community internship and the career explorations were the most helpful components of the program. They indicated that two weaknesses of the program were a lack of variety of job sites to explore and the fact that some students were not adequately prepared to work on their own. The most frequently mentioned strength was learning about "real life" situations. They rated the program highest in helping them learn how their interests and abilities fit into potential careers.

Employers perceived the greatest strength of ECC/GT to be the opportunities for students to learn about a variety of careers and about "real life" situations. Program weaknesses mentioned most frequently were the lack of adequate feedback about students, that some students were not adequately prepared to work on their own and that the program may be too difficult or technical for some students. Ninety percent of the employers surveyed plan to continue participating in the ECC/GT program.

4. Did ECC/GT students demonstrate progress in ability to describe and analyze lifestyles associated with a career field of interest and evaluate findings personally?

Analysis of the pre- and posttest results of the Student Assessment Survey indicate that the greatest growth of ECC/GT students was on the Career Exploration Scale, which included items dealing with the effects of a career of interest on one's lifestyle. Students in ECC/GT made a significantly greater growth on this scale than the gifted comparison group.

The sample of ECC/GT students interviewed by this writer indicated that one of the most interesting aspects of career information they uncovered in career exploration interviews with employers dealt with a career's effects on the person's lifestyle. When asked to describe what they meant by lifestyle, each of the six students was able to contribute valid responses. In the structured interview of 15 program participants by Dr. Dale Moore, students felt the most useful interview questions they asked of employers dealt with the effects of their careers on their family life.

Clearly, the evidence is consistent in indicating that ECC/GT students were highly interested in and learned much about life styles associated with a career field of interest and that they applied this information to themselves

5. Did ECC/GT students demonstrate progress in ability to analyze aspects of organizational structure in a career field of interest and apply findings to personal career plans?

Informal interviews by the evaluator with six ECC/GT students indicated little learning about organizational structure occurred. Students said this was not an area they could adequately cover in a career exploration interview because they were not sure how to ask questions in this area and felt more background information would have been needed by them to accomplish this. Since this outcome area was judged by the project director and evaluator to be a lower priority objective, specific test items were not written to address this area. Therefore, there is inadequate data to determine if this objective was accomplished. However, in light of the limited time students have in ECC/GT, the presence of higher priority objectives and the relatively low interest level of junior high school students in this topic, the evaluator would recommend that this objective be optional for students.

6. Did ECC/GT students demonstrate progress in ability to apply a creative problem-solving process to a career-related problem in a career field of interest, and develop a product as a result of this experience?

This objective was evaluated in relation to the perceived importance and effectiveness of the objective by the staff, the staff judgments of

student accomplishment, student interviews about their project and product, and open-ended test items to assess creative problem-solving skills. It is important to remember that ECC/GT is one component of a comprehensive gifted program and thus the emphasis in ECC/GT is on how to apply problem solving skills learned in earlier gifted components

Creative problem solving activities were rated unanimously by staff as one of the top three components of the project in terms of importance, but rated below average in terms of perceived effectiveness. Out of 17 students rated by learning managers, only 10 were judged to have made good progress in creative problem solving. Staff saw the internship as the primary program component leading to accomplishment of this objective. Some areas of internship learning, reported by students in their structured interview with Dale Moore, may reflect creative problem solving. Examples include political "wheeling and dealing" that takes place in legislative activities, computer programming difficulties encountered, "what each side looks for and how they act off of each other's response" (regarding lawyers), deciding how to organize data, considering alternatives among colleges to attend and how to avoid "getting stuck in off-beat jobs."

On the Student End-of-Year Questionnaire (SEYO), the creative problem-solving situational test developed by Dr. Diane Hedin at the Center for Youth Development at the University of Minnesota was used with her permission. This test has a sound theoretical base and has been used with over 2,000 high school students in 30 experience-based programs. The only part of this test in which ECC/GT students scored significantly higher than the gifted comparison group was in the number of alternative solutions identified.

In summary, this objective was judged as of major importance but evidence on its accomplishment is mixed. Some students made much progress in this area while others did not.

7. Did ECC/GT students develop a personal, tentative career plan?

ECC/GT students at Bell and Ken Caryl developed a written career plan while those at Wheatridge did not. The SEYQ contained an open-ended item for ECC/GT and GT comparison group students, asking them to identify a tentative career area of interest and to describe the plans beyond high school that would be necessary to prepare for the career they had identified. Students were asked to include educational plans, any certificates or licenses that may be needed or other factors needed in this preparation.

Student booklets were shuffled and placed in random order to avoid a possible scoring bias by the trained rater who served as a consultant to NWREL. After a training session and review of the scoring criteria, Dr. Owens scored all responses on a four-point basis. A "no response" was given a 0, a vague answer = 1, clear answer given but not related to the unique career = 2, and a clear answer given and related to the unique career = 3. Dr. Owens and the consultant independently scored a sample of eight answers, agreed on six and desagreed by one point on the other two students' answers.

The results of a t-test[1] using the ECC/GT and GT comparison group scores showed that the difference in favor of the program participants was significant (at the .07 level). On the ECC/GT Skills Documentation

[1]A t-test is a statistical test to determine if the mean scores are significantly different between two groups.

Summary, in which staff completed a matrix indicating which skills were learned by the student by each strategy (such as the career plan), it was indicated that the career plan was especially effective in developing critical thinking and the skill of evaluation. On a SEYQ self-report item, ECC/GT and GT comparison group students rated, on a 5 point scale, how effective they thought their program was in assisting them with selected outcomes. Learning how interests and abilities fit into potential careers was rated significantly higher (.03) by the ECC/GT students than by the GT comparison group students.

On a self-report scale measuring knowledge of steps to prepare for a career of interest, used in the SBQ and SEYQ, students in ECC/GT showed a significant (at the .05 level) gain while those in the GT comparison group showed a slight decrease.

8. Did ECC/GT students apply critical and creative thinking skills to the content areas of focus in the program?

As was true for the creative problem solving skills, the ECC/GT staff rated this objective as very high in importance, but only average in being effectively accomplished. Staff believed that this objective was carried out in the program primarily through the internship, exploration projects and career plans. Fourteen of the 17 students rated by their Learning Manager were judged to have made good progress on this objective. Students in ECC/GT felt they had received substantial help on this objective from the program, but the comparison students rated the help they received from their teacher significantly higher on this objective. On the SEYQ, several open-ended items were used to assess critical thinking.

The scores on these items were not significantly higher for ECC/GT students than for gifted comparison students. Thus, it can be said that ECC/GT components did give students experience in applying critical thinking skills but this application did not result in students performing significantly better on this dimension than gifted comparison students.

9. Did ECC/GT students use interview and library resources as research techniques?

The ECC/GT staff rated all 17 students as having made good progress in interviewing skills and nine of the 17 students as having made good progress in library research skills. Interviews with employers as part of the exploration projects were the primary delivery component for this objective. Library research skills were obtained primarily through exploration projects and course credit projects. Interviews of students by Dale Moore indicated that most students had not used interviews prior to program participation. All students, however, had been exposed to library research skills prior to participating in ECC/GT.

10. Did ECC/GT students demonstrate significant increase in the frequency of their thinking about various aspects of career planning related to a career of interest to them?

Exploration projects were the primary delivery strategy for this outcome. Staff judged all students as having made good progress on this objective. The Career Exploration Scale was used as a pre-post measure to assess change on this objective. The ECC/GT students demonstrated significantly greater pre-post gains on this outcome than did the gifted comparison students.

11. Did ECC/GT students demonstrate significant increase in their ability to communicate orally?

Exploration projects were the main component used to increase this skill. Staff judged all students as having made progress in this area. Student self-ratings on this outcome also indicated high accomplishment. On the Oral Communication Scale, however, ECC/GT students scored somewhat higher than the comparison group, but the differences were not statistically significant.

12. Did ECC/GT students demonstrate significant gains in accepting personal, interpersonal and social responsibility?

The Responsibility Scale, developed by Diane Hedin for high school students in various experiential projects, was used as a pre-post measure. The ECC/GT students scored somewhat higher than the comparison group but the differences were not statistically significant. This outcome was not an objective of the junior high ECC/GT level. At the senior high level, ECC students spend greater time at an employer site and often get opportunities to display greater responsibility. In the junior high ECC/GT, the student's responsibility is often limited to responsibility for his or her own learning. This becomes closely related to the next objective--time management.

13. Did ECC/GT students demonstrate significant increase in time management skills?

The individualized nature of the ECC/GT program requires that students be able to manage their time wisely. On structured interviews of 15 ECC/GT students by Dale Moore, he found that 13 of 15 students felt that

participating in ECC/GT had helped them organize their time more effectively. One student replied, "It might have helped a little, but not much," and the other said, "I could organize time before this." According to students, the program helped especially in planning their day's activities and in arranging transportation.

14. Did ECC/GT students demonstrate significant increase in self-awareness? The program helped students gain self-awareness primarily through exploration projects and student seminars. Staff rated all students as having made good progress on this objective. Student self-ratings also indicated increase in this objective. A review of students' written career plans on the SEYQ revealed numerous examples of self-awareness. Although no objective scoring system was used to assess this highly personal objective, student self-reports and ratings by learning managers provide evidence that the project made progress on this objective.

15. Did ECC/GT students demonstrate significant increase in their knowledge of community resources available to aid in learning and problem solving? The primary program components leading to this outcome were the internship and career explorations. An item on the SEYQ asked students to first, "name one problem in your community that you feel people should be concerned about." Next, it asked them, "If you wanted to obtain information and assistance about the above problem, which people and organization in your community would you talk or write to? Be as specific as possible -- list names of people and organizations if you know them. List as many as you can." Space was provided for eight responses.

A NWREL consultant scored this item. Scores could range from 0 to 8. One point was awarded for each valid, independent response. Responses like "people" were considered invalid. Dr. Owens and the consultant independently scored a sample of eight answers, agreed on six and again disagreed by one point on the other two students' answers. The ECC/GT listed significantly (.05) more valid responses.

16. Did ECC/GT students demonstrate significant increase in predicting possible future trends in a career area of interest based on current developments in the career area and the use of their critical thinking skills?

Insternship experiences and career explorations were used to achieve this objective. One question on the SEYQ asked students, "What are two important changes that will likely occur in your career field in the next 20 years? Indicate what evidence you have to support your predictions." A half page was provided for their open-ended response. Scores for this item could range from 0 to 2 for changes listed and from 0 to 2 for plausible reasons. Of the eight answers independently scored by the consultant and Dr. Owens, complete agreement was reached on all six changes and on seven of the eight reasons given. The ECC/GT students listed somewhat more changes (.11). There were no differences on scores for "reasons given" between the two groups. Some students listed changes but gave no reasons. Thus, this objective could be considered to have been partially achieved.

## SECTION V

## SUMMARY OF RESULTS

In the second part of Section IV, evaluation findings are presented related to 16 evaluation questions. This section will summarize these findings in a single statement for each finding.

1. The revised ECC/GT curriculum was generally found to be appropriate for junior high gifted and talented students. Career explorations and the internship were found to be most useful. Within the career exploration projects, learning about life styles related to a career of interest was most appropriate, while learning about organizational structure appeared least appropriate.

2. Students and staff felt the internship guide developed this year was very helpful but could be strengthened by adding sample projects and products to help students better understand the kinds of projects and products that are expected. Students also suggested being given the option of focusing on a fewer number of topics in their career exploration employer interviews, thus allowing them to probe on points of interest.

3. Students, staff and community instructors were quite positive in their views of ECC/GT. Staff felt the program was most helpful in assisting students with time management, communicating comfortably with adults and improving student self-understanding. Students felt the program helped them learn how their interests and abilities fit into potential careers. Employers saw the program as providing students with opportunities to learn about a variety of careers and about "real life" situations.

4. Students in ECC/GT demonstrated significant progress in describing and analyzing lifestyles associated with a career field of interest. They also felt this was an important dimension to discuss with employers.

5. Students expressed little interest in learning about the organizational structure in a career field of interest.

6. ECC/GT students engaged in program activities that applied a creative problem solving process to a career-related problem in a career field of interest, and developed products as a result of this experience. Staff ratings of students indicated that 60 percent were judged to have made good progress in creative problem solving. ECC/GT students scored significantly higher at the end of the year than gifted comparison students on one dimension of problem solving--the number of alternative solutions generated.

7. Students at two of the three ECC/GT schools developed written career plans. On a posttest performance measure of career planning, ECC/GT students scored significantly higher than the gifted comparison group students.

8. Staff felt that 82 percent of the ECC/GT students had demonstrated good progress in critical thinking skills.

9. All ECC/GT students were rated by staff as having made good progress in interviewing skills and 53 percent were judged to have made good progress

in library research skills. Most students had not conducted interviews with adults prior to this program, whereas all had previously been exposed to library research skills.

10. As a result of program participation, the ECC/GT students demonstrated significantly greater scores than the gifted comparison group students in the frequency of their thinking about various aspects of career planning related to a career of interest to them.

11. In the opinion of both staff and students, substantial progress was made in students' ability to communicate orally with adults. Results of a pre-post Oral Communication Scale failed to detect significant gains by the ECC/GT students.

12. The area of increased sense of responsibility, while not an objective of ECC/GT, was assessed as a possible indirect outcome of the program. Test data failed to detect significant gains in ECC/GT students in accepting responsibility. This may have been due to the fact that most students selected for program participation were already high in responsibility and task motivation.

13. Ninety percent of the ECC/GT students interviewed said that participating in ECC/GT had helped them organize their time more effectively.

14. Student self-perceptions and staff ratings indicate that students became more self-aware as a result of their exploration projects and student seminars.

15. On a posttest performance measure, ECC/GT students demonstrated a significantly greater knowledge of community resources available to aid in learning and problem solving than did the gifted comparison group.

16. ECC/GT students, on a posttest performance measure, demonstrated greater skill in predicting possible future trends in a career area of interest than did gifted comparison group students.

17. Student selection processes for entering ECC/GT were not examined in 1979-80 since they were intensively evaluated in the two prior years.

## SECTION VI

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Jefferson County Public School District in 1979-80 operated a successful career exploration program for gifted and talented students in three junior high schools. The program combines excellent features of Experience-Based Career Education and of gifted and talented education. As such, the Exploring Careers in the Community for Gifted and Talented (ECC/GT) program provides an important 18-week component of a comprehensive gifted and talented program. This component has the capability of enhancing junior high school gifted and talented programs throughout the country.

The 1979-80 school year marked the third year of development and refining of the concept and operational implementation of experienced-based career education adapted to the needs of gifted and talented junior high school students. The staff are to be complemented for their willingness during the past year to make major changes in the objectives and curriculum of the program. Their boldness has led to a program that more appropriately meets the needs and interests of gifted and talented youth. For example, while students in the regular Exploring Careers in the Community Project go into the community for career explorations to learn about basic features of a career of interest, students in ECC/GT also explore, in some depth, the effects of the particular career on a person's lifestyle and look at the future trends in that occupational area. In addition, they participate in an internship experience with a community instructor that leads to the development of a creative product. Such features can nicely complement other components of a comprehensive junior high gifted and talented program.

Recommendations

1. Based on the data presented in this report and the ECC/GT materials already prepared, it is recommended that ECC/GT receive state validation as an exemplary program worthy of dissemination. This recommendation is made because the program 1) is serving a critical need of gifted and talented junior high students, 2) has now stabilized and has an operational model, materials and training that could be available to districts considering its adoption and 3) has documented important student learner outcomes.

2. The interest and ability of gifted and talented junior high students to learn about the effects of a career of interest on a person's lifestyle suggest that that outcome of career explorations be recognized as a key element. Conversely, their general disinterest in learning about organizational structure related to particular careers leads this evaluator to suggest that that element of career explorations be dropped or made optional.

3. A program weakness often cited by participating employers is a lack of adequate feedback about students. This concern is raised by employers in most Experience-Based Career Education (EBCE) programs. The suggestions, given by staff during the June debriefing related to community instructors, should be pursued. They suggested feedback to the community instructor following a staff site visit, sharing a student's final product and more involvement in student evaluation. Experience from other EBCE programs suggests that oral feedback to community instructors is usually preferable to using written forms.

4. Based on 1978-79 evaluation of ECC/GT, a number of changes were suggested for evaluation instruments. These changes have been implemented in 1979-80, resulting in a more conclusive set of findings. Based on the recent year's experience, no major revisions are suggested in the evaluation measures, with the exception of deleting the responsibility scale on the Student Assessment Survey since the items there do not appear directly relevant for this program.

APPENDIX A

## STUDENT BACKGROUND QUESTIONNAIRE

*Please check the answers that describe you, or write in responses when asked to do so.*

| ECC/GT Comparison (N=21) | (N=17) | |
|---|---|---|
| | | 1. Have you ever worked for pay outside of your home on a regular basis? *(if no, ignore question 2 and go directly to question 3.)* |
| 11 | 12 YES | 1. Yes 2. No |
| | | 2. If you answered yes to question 1, what types of work do you do now or have you done in the past? |
| | | 3. What do you expect to be doing one year after completing high school? *(check one or more answers)* |
| 1 | 1 | Working full-time |
| 2 | 2 | Entering an apprenticeship or on-the-job training program |
| 0 | 3 | Going into regular military service or to a service academy |
| 0 | 1 | Attending a vocational, technical, trade or business school |
| 4 | 1 | Attending a junior or community college |
| 13 | 16 | Attending a four-year college or university |
| 5 | 4 | Working part-time |
| 2 | 0 | Other (travel, take a break) |
| 3 | 0 | I have no idea what I'll be doing |

**ECC/GT Comparison**

| | | | |
|---|---|---|---|
| | | 4. | How far do you plan to pursue your formal education? *(Check one)* |
| 0 | 0 | | Don't plan to finish high school |
| 0 | 0 | | Graduate from high school |
| 1 | 2 | | High school plus one or two years of college, community college or special training |
| 4 | 2 | | |
| 7 | 7 | | High school plus three or more years of college, community college or special training |
| 9 | 6 | | Graduate from four-year college |
| | | | Graduate or professional training beyond college |
| | | 5. | List two jobs you feel you would like to hold after completing your education. Be as specific as possible (for example, say "a mechanical drafter" rather than "working at National Engineering Co.") |

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| | | | |
|---|---|---|---|
| | | 6. | Have you observed or directly worked at either or both of the two preferred jobs listed for question 5? |
| 8 | 3 | | I have observed or worked at both jobs |
| 7 | 8 | | I have observed or worked at one of these two jobs |
| 6 | 6 | | I have not observed or worked at either job |
| | | 7. | How sure are you of steps to prepare for and enter the job which you would most like to hold after graduation? |
| | | | Do not know where to begin |
| 1 | 2 | | Have some idea |
| 6 | 5 | | Steps pretty clear |
| 11 | 7 | | Steps quite clear |
| 3 | 3 | 8. | Do you feel you will be able to complete the necessary steps for this job? |
| 18 | 16 | | Yes |
| 3 | 1 | | Not sure |
| 0 | 0 | | Probably not |

9. How important was each of the following factors in deciding to join the EBCE program? *(Circle one number for each question. For example, "1"=not important and, "3"=somewhat important and "5"=extremely important.)*

| | *Not Important* 1 | 2 | 3 | 4 | *Extremely Important* 5 | Mean |
|---|---|---|---|---|---|---|
| 1. I wanted more freedom/ independence | 3 | 2 | 2 | 8 | 6 | 3.57 |
| 2. I wanted to choose my own learning style | 0 | 5 | 5 | 6 | 5 | 3.52 |
| 3. I wanted to learn about careers | 0 | 2 | 4 | 5 | 10 | 4.10 |
| 4. I did not like my previous school | 10 | 6 | 3 | 1 | 0 | 1.75 |
| 5. I wanted to prepare for a job | 1 | 1 | 5 | 7 | 7 | 3.86 |
| 6. I was bored with school | 5 | 7 | 2 | 4 | 3 | 2.67 |
| 7. I heard the ECC program was easy | 13 | 4 | 3 | 0 | 0 | 1.50 |

8. Other (specify)_____

_____

5. List two jobs you feel you might like to hold after completing your education.

Jobs were coded according to Hollingshead's socioeconomic status system into the following categories:

| Preference: | ECC/GT | Comparison |
|---|---|---|
| 1) Higher executives and major professionals | 8 | 9 |
| 2) Business managers and lesser professionals | 3 | 3 |
| 3) Administrative personnel and minor professionals | 6 | 1 |
| 4) Clerical, sales workers | 2 | 0 |
| 5) Skilled manual employees | 0 | 1 |
| 6) Semi-skilled employees | 1 | 0 |
| 7) Unskilled | 0 | 1 |

Jobs were coded according to Holland's occupational categories from The Self-Directed Search:

| Preference: | | |
|---|---|---|
| 1) Realistic | 7 | 8 |
| 2) Investigative | 1 | 4 |
| 3) Artistic | 8 | 3 |
| 4) Social | 1 | 1 |
| 5) Enterprising | 0 | 0 |
| 6) Conventional | 0 | 0 |

APPENDIX B

# ECC/GT SKILLS DOCUMENTATION SUMMARY

Student Name _____

School _____

Please complete the matrix below be checking off which skills or content were learned by the student by which strategies. For example, if the student learned analysis skills through guidance activities put a check in that cell, otherwise leave it blank.

| | Guidance Activities | Seminars | Exploration Projects | Career Plan | Internship Project | Course Credit Projects |
|---|---|---|---|---|---|---|
| Analysis Skills | 7 | 3 | 17 | 1 | 15 | 8 |
| Synthesis | 7 | 6 | 10 | 1 | 8 | 15 |
| Evaluation | 7 | 6 | 14 | 9 | 8 | 4 |
| Critical Thinking | 7 | 7 | 14 | 11 | 14 | 4 |
| Creative Problem Solving | 7 | 5 | 4 | | 10 | 4 |
| Interviewing | | 3 | 17 | | 8 | 1 |
| Library Research | | | 9 | | 2 | 9 |
| Biography/Non-Fiction | | | | | | |
| Career Awareness | | 9 | 17 | 3 | 12 | 1 |
| Self Awareness | 7 | 15 | 17 | 4 | 7 | 2 |
| Lifestyle | | 1 | 15 | 2 | 4 | |
| Ladder/Lattice | | | 12 | | 5 | |
| Management Style | | | 11 | | 3 | |
| Organizational Change | | | 10 | | 2 | |
| Future Trends | | | 11 | | 2 | |
| Career Planning | | | 8 | 4 | 1 | |

How many course credits was this sutdent awarded? _____

APPENDIX C

# ECC/GT STUDENT END-OF-YEAR QUESTIONNAIRE

Name_____ Date_____

School_____

Student Number_____

## ECC/GT STUDENT END-OF-YEAR QUESTIONNAIRE

You are finishing a quarter or semester of participation in the ECC/GT program. This questionnaire asks some of the same questions that you may have asked as you entered the ECC/GT program and adds some new ones that cover your career plans, personal experiences and knowledge about the world of work. If you have any questions while completing the survey, ask for assistance.

| GT | Comp. (N=18) | |
|---|---|---|
| 1) | | 1. What do you expect to be doing one year after completing high school? |
| 0 | | 1. [] Working full-time |
| 0 | | 2. [] Entering an apprenticeship or on-the-job training program |
| 0 | | 3. [] Going into regular military service or to a service academy |
| 0 | | 4. [] Attending a vocational, technical, trade or business school |
| 1 | | 5. [] Attending a junior or community college |
| 15 | | 6. [] Attending a four-year college or university |
| 2 | | 7. [] Working part-time |
| 2 | | 8. [] Other (travel, take a break) |
| 0 | | 9. [] I have no idea what I'll be doing |
| | | 2. How far do you plan to pursue you formal education? (check one) |
| 0 | | 1. [] Don't plan to finish high school |
| 1 | | 2. [] Graduate from high school |
| 0 | | 3. [] High school plus one or two years of college, community college or special training |
| 2 | | 4. [] High school plus three or more years of college, community college or special training |
| 8 | | 5. [] Graduate from four year college |
| 6 | | 6. [] Graduate or professional training beyond college |
| | | 3. List two jobs you feel you might like to hold after completing your education. Give the vocation rather than location. (For example, say "a drafter" rather than "working at National Engineering.") |

1._____ (see next page)

2._____

APPENDIX C
(Continued)

| | Number of Students Responding | |
|---|---|---|
| | ECC/GT (N=21) | Comparison (N=17) |
| 3. List two jobs you feel you might like to hold after completing your education. | | |
| Jobs were coded according to Hollingshead's socioeconomic status system into the following categories: | | |
| Preference: | | |
| 1) Higher executives and major professionals | 8 | 6 |
| 2) Business managers and lesser professionals | 6 | 5 |
| 3) Administrative personnel and minor professionals | 4 | 5 |
| 4) Clerical, sales workers | 1 | 0 |
| 5) Skilled manual employees | 2 | 1 |
| 6) Semi skilled employees | 0 | 0 |
| 7) Unskilled | 0 | 0 |
| Jobs were coded according to Holland's occupational categories from The Self-Directed Search: | | |
| Preference: | | |
| 1) Realistic | 3 | 1 |
| 2) Investigative | 7 | 5 |
| 3) Artistic | 3 | 3 |
| 4) Social | 4 | 6 |
| 5) Enterprising | 1 | 2 |
| 6) Conventional | 3 | 0 |

Comp.

4. Have you observed or directly worked at either or both of the two preferred jobs listed for question #3?

5 1. [] I observed or worked at both jobs
11 2. [] I observed or worked at one of these two jobs
1 3. [] I did not observe or work at either job

5. How sure are you of steps to prepare for and enter the job which you would most like to hold after graduation?

1 1. [] Do not know where to begin.
7 2. [] Have some idea
8 3. [] Steps pretty clear
1 4. [] Steps quite clear

6. Do you feel you will be able to complete the necessary steps for this job?

17 1. [] Yes
2. [] Not sure
3. [] Probably not

7. What aspects of your learning experience this year (if any) influenced your choice of potential careers? (Check as many as apply.)

4 1. [] None
3 2. [] I talked to teachers or a counselor about my choices
6 3. [] I talked to people who work at the jobs
6 4. [] I talked with relatives or friends about my choices
4 5. [] I had experience in observing or trying out the jobs
5 6. [] I read about the jobs
2 7. [] Other (please write in)_____

_____

8. a. Are there any jobs that <u>last</u> year seemed interesting that you now feel do <u>not</u> match your interests or abilities?

6 YES 1. [] Yes 2. [] No

b. If yes, list these jobs_____

_____

c. Why do you now feel that the job(s) no longer match your interests or abilities?_____

(see next page)

_____

_____

_____

APPENDIX C
(Continued)

0
0
2
4
8
9
0
0

| | Number of Students Responding | |
|---|---|---|
| | ECC/GT | Comparison |
| c. Why do you now feel that the job(s) no longer match your interests or abilities? | | |
| 1. I round out more about what the job involves and do not like it. | 3 | 0 |
| 2. Job does not pay enough/not enough chance for promotion | 0 | 0 |
| 3. Job requires long hours/is physically tiring or difficult | 0 | 0 |
| 4. Job would require more years of training than I desired/expected | 2 | 1 |
| 5. Job is not as interesting to me/am no longer interested | 2 | 4 |
| 6. Job is too seasonal/has few openings/ not much job security | 0 | 1 |
| 7. Job is low status/undesirable/does not meet my standards | 1 | 0 |
| 8. Other ("not sure", "multitude of happenings") | 1 | 0 |

| /GT | Comp. | | |
|---|---|---|---|
| | | d. | What caused you to change your mind about the job(s)? (Check one or more of the following.) |
| 0 | 0 | 1. | Advice from teachers or a counselor |
| 0 | 2 | 2. | Advice from relatives or friends |
| 2 | 1 | 3. | Advice from someone who works at the job(s) |
| 4 | 2 | 4. | Information I have read about the job(s) |
| 8 | 1 | 5. | Experience in observing or trying out the job(s) |
| 9 | 3 | 6. | My interests have changed |
| 0 | 0 | 7. | I don't know |
| 0 | 0 | 8. | Other (please state your reason_____ |

_____

_____

_____

9. On the grid below please circle a number from 1 to 5 to indicate how helpful you feel ECC/GT has been to you in reaching each objective. (For example, if you feel ECC/GT was very helpful circle 5, if moderately helpful circle 3 and if little or no help circle 1.)

How helpful do you feel your ECC/GT experiences this year have been in assisting you to--

| | ECC/GT (N=21) | | Comparison Group (N=16) | | | |
|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | t | p |
| | Of Little or No Help 1 2 3 4 5 Very Helpful | | | | | |
| a. solve problems logically. | 3.38 | .97 | 3.87 | 1.30 | -1.22 | |
| b. understand more about yourself. | 3.62 | 1.20 | 3.47 | 1.30 | .36 | |
| c. get along with others and work cooperatively. | 3.96 | 1.11 | 4.10 | 1.20 | - .30 | |
| d. understand the democratic process. | 3.00 | 1.52 | 1.90 | 1.12 | 2.57 | .02 |
| e. learn how your interests and abilities fit into potential careers (career planning). | 4.20 | 1.00 | 3.20 | 1.42 | 2.33 | .03 |
| f. learn how society's values, the government and the economy affect the world of work | 3.60 | 1.25 | 2.00 | 1.00 | 4.19 | .01 |
| g. learn what to look at when considering a job. | 3.71 | 1.31 | 2.60 | 1.50 | 2.31 | .03 |
| h. learn how to find and keep a job. | 3.20 | 1.44 | 2.10 | 1.22 | 2.53 | .02 |
| i. learn the basic skills necessary for the careers that interest you. | 3.80 | 1.41 | 2.30 | 1.34 | 3.20 | .01 |

| | ECC/GT Mean | ECC/GT S.D. | Comparison Group Mean | Comparison Group S.D. | t | P |
|---|---|---|---|---|---|---|
| | Of Little or No Help 1 | 2 | 3 | 4 | Very Helpful 5 | |
| j. improve your reading skills. | 1.71 | 1.01 | | 1.53 | 1.13 | .50 |
| k. improve your math skills | 1.67 | 1.24 | | 1.33 | .62 | 1.60 |
| l. improve your oral communication skills. | 3.95 | 1.20 | | 3.30 | 1.60 | 1.41 |
| m. improve your writing skills | 3.33 | 1.20 | | 2.60 | 1.64 | 1.47 |
| n. know what level of basic skills proficiency is required in the jobs of interest to you. | 3.52 | .87 | | 2.47 | 1.60 | 2.33 |
| o. gain confidence in your ability to apply basic skills to complete tasks and to solve problems around you. | 3.95 | .97 | | 4.00 | 1.31 | - .12 |
| p. become acquainted with a broad range of resources to use in gathering information for work and decision making. | 4.00 | .89 | | 4.00 | .93 | 0 |
| q. communicate comfortably with adults | 4.00 | 1.30 | | 3.80 | 1.37 | .45 |
| r. take responsibility for your own actions. | 3.86 | 1.11 | | 3.80 | 1.42 | .13 |
| s. become more open to ideas and values different from your own. | 2.58 | 1.30 | | 3.73 | .96 | - .43 |
| t. use information obtained through direct experiences in making decisions. | 3.77 | .83 | | 3.64 | 1.28 | .31 |
| u. feel prepared to accept adult responsibilities. | 4.10 | .77 | | 3.73 | 1.39 | .92 |
| v. met objectives in the courses for which I received credit (ex: social studies, etc.). | 3.48 | 1.40 | | 3.13 | 1.20 | .79 |
| w. apply problem solving and decision-making skills to problems in a career field | 3.33 | 1.29 | | 3.13 | 1.64 | .39 |
| x. cope with change and adapt as necessary to changing situations. | 3.71 | 1.01 | | 3.90 | 1.00 | - .45 |

| | ECC/GT Mean | ECC/GT S.D. | Comparison Group Mean | Comparison Group S.D. | t | p |
|---|---|---|---|---|---|---|
| | Of Little or No Help 1 | 2 | 3 | 4 | Very Helpful 5 | |
| y. use higher-level thought processes to solve problems. | 3.50 | 1.32 | | 4.33 | .82 | -2.39 | .02 |
| z. produce "new" knowledge in a career field of interest to me. | 4.04 | 1.02 | | 3.33 | 1.23 | 1.84 | .08 |

10. On the grid below please circle a number from 1 to 5 to indicate how helpful you feel the following ECC or ECC/GT strategies have been to you. (For example, if you feel career explorations were very helpful circle 5, if moderately helpful circle 3, and if of little or no help circle 1.)

How helpful to you were the following ECC or ECC/GT strategies :

| | Of Little or No Help | | Very Helpful |
|---|---|---|---|
| a. career explorations | 4.29 | .64 | |
| b. student orientation | 3.33 | .91 | |
| c. career films, tapes, etc. | 2.33 | 1.02 | |
| d. student journal | 2.48 | 1.37 | |
| e. seminars (outside speakers) | 3.52 | 1.21 | |
| f. guidance activities | 2.95 | 1.32 | |
| g. exploration projects | 3.86 | .91 | |
| h. community internship | 4.70 | .47 | |
| i. competencies (survival skills) | 3.29 | 1.38 | |
| j. course credit (if applicable) | --- | --- | |
| k. career plans | 3.86 | 1.11 | |

11. How would you rate the overall quality of your ECC/GT program?

Poor 1 2 3 4 5 Excellent — 3.91 .83

12. If you had it to do over again, do you think you would decide to participate in ECC/GT?

Definitely no 1 2 3 4 5 Definitely yes — 3.50 1.50

13. In ECC/GT have you felt that you could progress at your own rate?

| Definitely no | | | | Definitely yes | Mean | S.D. |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 4.10 | .94 |

14. In comparison with the regular school program, how much opportunity did ECC/GT provide you for learning about occupations?

| Much less | | About same | | Much more | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 4.76 | .44 |

15. In comparison with the regular school program, how much opportunity did ECC/GT provide you for general learning?

| Much less | | About same | | Much more | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 3.81 | 1.17 |

16. In comparison with past experiences in the regular school program, how motivated are you to learn in ECC/GT?

| Much less | | About same | | Much more | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 3.81 | 1.21 |

| ECC/GT Comparison | | p | |
|---|---|---|---|
| 1.62 | 1.50 | NSD[1] | 17. a. Name one problem in your community that you feel people should be concerned about. _____ |

_____

b. If you wanted to obtain information and assistance about the above problem, which people and organizations in your community would you talk or write to? Be as specific as possible--list names of people and organizations if you know them. List as many as you can.

| | | | |
|---|---|---|---|
| 3.29 | 1.63 | .04 | 1. 5. |
| | | | 2. 6. |
| | | | 3. 7. |
| | | | 4. 8. |

18. Listed below is an incident a student could encounter in a community based learning program. Read the incident carefully and project yourself into the setting as if it is a situation that you must deal with personally. As you read the story, think about what things you would do or say in the situation. Then answer the questions below:

[1] NSD=No significant difference between the two groups.

You are working at a nursing home. You've come to be really good friends with one lonely old man there and you visit him every time you come. One day he tells you the only thing he really hates about the nursing home is that the staff won't let him have a drink. He hands you a couple of bucks and asks you to sneak a pint of brandy to him the next time you come. You say you can't get any because you're under age, but he begs you. What do you do or say?

1. What's the first thing you would think of to do or say?

   a. _____

   _____

   _____

2. What other things could you do or say--try to list as many as you can.

_____

| T Comparison | p | |
|---|---|---|
| 3.69 | .05 | Number of valid, independent alternatives listed |
| | | Score on actively seeking to resolve the problem and accept responsibility for its resolution |
| 3.50 | NSD | |

3. Look back at what you wrote in No. 1 and 2 and list the letter of the one you think is best: _____. Please explain why you chose it.

4. Choose one you rejected and list the letter of the item _____. Please explain why you rejected it.

5. Explain what you think is the "real" problem behind the incident:

| ECC/GT | Comparison | p | |
|---|---|---|---|
| 2.24 | 2.13 | NSD | Consequences index |
| 4.62 | 4.07 | NSD | Complexity-empathy index |

6. Have you ever had to handle a problem like this before?

| | | | |
|---|---|---|---|
| 1.67 | 1.87 | NSD | Yes=1, No=2 |

_____ yes _____ no

19. Students in junior high are usually not sure of what career field they would like to pursue after completing their education and that is natural since there are a number of years yet to think about this issue and to change your mind if you want. Based on what you now know about yourself and the world of work, please indicate below the name of a specific career field that you <u>think</u> you might like to enter upon completing your education.

_____ We would like you to answer the following questions based on the career field you indicated.

a. Write a paragraph or two in the space below that shows how your potential career field is related to your personal interests, abilities and values. Be as specific as possible and indicate any evidence you have to support your position.

T Comparison p

2.21 NSD Score on listing personal interests, abilities and values

1.64 NSD Score on providing evidence for your position

b. What are the special characteristics of people who tend to be successful in the career you have identified? Why are these characteristics important in that particular career?

1.64 NSD Characteristics listed

1.50 NSD Reasons given

c. Describe the plans beyond high school that would be necessary to prepare for the career you have identified. Include educational plans, any certificates or licences that may be needed or other factors needed in this preparation.

| ECC/GT | Comparison | p | |
|---|---|---|---|
| 2.76 | 2.21 | .07 | Plans |

d. What are two important changes that will likely occur in your career field in the next 20 years. Indicate what evidence you have to support your prediction.

| | | | |
|---|---|---|---|
| 1.57 | 1.14 | .11 | Changes given |
| 1.24 | 1.07 | NSD | Reasons |

Comparison p

e. What are three specific careers closely related to your career choice that require similar skills, interests and values?

1.93 NSD 1. Careers listed _____

2. _____

3. _____

20. What do you think are the two greatest weaknesses of the ECC/GT program? (Check the responses you feel are most applicable or write in your own response.)

8 1. [] Some students were not adequately prepared to work on their own
3 2. [] Problems in the organization/staffing of the program
1 3. [] Students not receiving sufficient training in basic skills or survival skills
2 4. [] Inadequate supervision of students on job sites
2 5. [] Lack of a variety of job sites to meet students' interests
6 6. [] Other (please write in)_____

_____

21. What do you think are the two greatest strengths of the ECC/GT program? (check the responses you feel are most applicable or write in your own response.)

9 1. [] Good alternative to a regular school program
7 2. [] Quality of the staff
3 3. [] Students learn about a variety of careers
5 4. [] Students learn about "real life" situations and responsibility
5 5. [] Good way of getting students to learn
4 6. [] Experience in working with adults
6 7. [] Individual treatment of students
8. [] Other (please write in)_____

_____

APPENDIX D

SUMMARY OF RESPONSES TO THE STUDENT INTERVIEW

Interviewing Skills

1. What experience with interviewing have you had prior to this program?

   None/"hardly any" (10)

   In ECC (2)

   Telephone conversations

   Some with GT program

2. What types of questions produced the most useful responses? Why?

   Yes/no questions first, then opinion-type questions (5)

   Family life/job questions (5)

   No specific type/"can't think of any" (3)

   Those requiring long discussion

   Personal experiences

3. What types of questions produced the least useful responses? Why?

   None/"I don't know of any" (4)

   Salary questions (3)

   Yes/no/short response (2)

   Long, involved

   Repetitions/non-relevent

   Questions too specific

   "Full-time" questions

   Too formal/informal depending on situation

Internship Skills

4. What things did you learn from your internship experiences?

   Programming--how hard it is to get something done. It was harder than I thought it would be. I don't have any high hopes about how easy things might be.

   An awful lot about people, especially legislators, and how things get done. There are many more people involved than they say in the textbooks and a lot of "wheeling and dealing" takes place.

I found out I don't want to be a Forest Ranger. Dull existence--living there day by day. Enjoyed the outside but, if I ever get a job, I want it to be enjoyable. Promotions in Forest Ranger life only lead to office work. That wouldn't be for me.

Basically, just what do (police) officers do. They are people. They make mistakes, but now they are viewed as helpers rather than "busters" of people.

Gee, lots of things--like I know pretty much where I want to go. I want to be some kind of lawyer. What kind is not known yet. I learned what each side looks for and how they act off of each others response.

I need to get more education from college and find out where the best college is and the chances of getting a job with the Forest Service. I learned the specific area of interest--free biologist. The test is very important. I could go with the government or with private industry.

Compiling data. Filing information. Deciding how to organize data. Getting together with another person on a project. Often I work alone. It was good to do this together "especially in my case."

I had decided on a college before and one person in the firm I visited had gone there and said it was not the best so I will look for another school. My mother wants me to go to Harvard.

Whole bunch of things. I don't think any of it will be very helpful. I didn't take notes and didn't read the book. Nothing I learned will be of great importance.

Some drafting techniques, some general physics.

How to apply myself to a job, get it finished and produce a presentable product.

The thing is, well, when you go into the department you get stuck in the off-beat jobs. I want to work there, but maybe in some aspect that is more interesting. I did learn about going to Metro or Red Rocks for college programs. Jeffco requires eight weeks training at the Academy and then a test.

Basically, being able to talk with adults, interviewing, being more relaxed, being on the job earning money.

Hard to say. If I open a Hobby Store, I will know a lot. Trying to sell a game even when I might not like it. I could work in a hobby store.

The kinds of things that go on in an education department of a museum. I learned a lot about downtown Denver. What research materials are available.

Time Management

5. Has your experience in this program helped you to improve your ability to organize time effectively?

Yes (13)

No (2)

If yes, in what ways? If no, why not?

Yes

Effective "day-planning"/phone calls/transportation (7)

Responsibility/punctual/meeting deadlines (3)

Completing class assignments (2)

To eliminate procrastination (2)

Getting it "all together"

No

I'm a poor person to organize things. It might have helped a little, but not much

I don't think so. I could organize time before this.

APPENDIX E

ECC/GT STAFF OPINION SURVEY

e: (optional) _____

___ Junior high ECC/GT program

___ Senior high ECC/GT program

Listed below are the major learning activities used in junior and senior high ECC/GT programs. Rate each activity, first in terms of how important you feel it is for ECC/GT students, and secondly in terms of how effective you feel it has been this year. Some activities may be considered important, but have not produced effective results while others may be considered very effective but have been of little importance. If the activity is not used in your program, circle N/A for not applicable.

| Learning Activities | How Important: Not Important 1 | 2 | 3 | 4 | Highly Important 5 | How Effective: Not Effective 1 | 2 | 3 | 4 | Highly Effective 5 | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Student orientation | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 1 | 1 | |
| b. Orientation project | 2 | | 1 | | | 1 | 1 | 1 | | | 1 |
| c. Student accountability | | | | 2 | 2 | | | 1 | 2 | 1 | |
| d. Guidance activities | | | | | 3 | | | | 2 | 1 | 1 |
| e. Competencies | | | 1 | 2 | 1 | | | 1 | 2 | 1 | |
| f. Exploration projects | | | 1 | 1 | 1 | | 1 | 2 | | | 1 |
| Comparison/contrast<br>Lifestyle<br>Organizational structure<br>Future trends | | | | | | | | | | | |
| g. Career explorations | | | | 2 | 2 | | | 1 | 3 | | |
| h. Seminars | | | 1 | 2 | | 1 | | 1 | 2 | | |
| i. Career plan | | | 1 | | | | | 1 | | | 1 |
| j. Community internship | | | | | 4 | | | 1 | 3 | | |
| k. Student journals | | | 2 | 2 | | | | 3 | 1 | | |
| l. Negotiating course credit | | 1 | 2 | | | | | 2 | | 1 | 1 |
| m. Course credit projects | | 1 | 2 | | | | | 2 | 1 | | 1 |
| n. Process activities: critical/creative thinking skills | | | | | 4 | | 2 | | 2 | | |
| o. Process activities: creative problem solving skills | | | | | 4 | | 2 | 1 | 1 | | |

| Learning Activities | How Important: Not Important | How Important: Highly Important | How Effective: Not Effective | How Effective: Highly Effecti |
|---|---|---|---|---|
| p. Process activities: research skills | | | | |
| q. Biography, literature studies | | | | |
| r. Other: | | | | |

2. On the grid below, indicate how helpful you feel the ECC/GT program/expreiences have been in helping students to do each of the following: Circle the number which corresponds with your feelings.

| | Of Little or No Help 1 | 2 | 3 | 4 | Very Helpful 5 |
|---|---|---|---|---|---|
| a. Solve problems logically. | | | 4 | | |
| b. Understand more about themselves. | | | | 3 | 1 |
| c. Get along with others and work cooperatively. | | | | 4 | |
| d. Understand the democratic process. | | 2 | 1 | 1 | |
| e. Learn how their interests and abilities fit into potential careers. (career planning) | | 2 | | 1 | 1 |
| f. Learn how society's values, the government and the economy affect the world of work | | 2 | 1 | 1 | |
| g. Learn to analyze potentail careers. | | | 1 | 3 | |
| h. Learn how to find and keep a job. | | 3 | 1 | | |
| i. Learn the basic skills necessary for the careers that interest them. | 2 | 1 | 1 | | |
| j. Improve organizational (time management). | | | | 3 | 1 |
| k. Improve research skills (interviewing & library). | | 2 | | 2 | |
| l. Improve their oral communication skills. | | | 4 | | |
| m. Improve their written communication skills. | | | 4 | | |
| n. Know what level of basic skills proficiency is required in the jobs of interest to them. | | | 2 | 2 | |
| o. Gain confidence in their ability to apply basic skills to complete tasks and to solve problems around them. | | | 3 | 1 | |
| p. Because acquainted with a broad range of resources to use in gathering information for work and decision making. | | 1 | 2 | 1 | |
| q. Communicate comfortable with adults. | | | | 2 | 2 |
| r. Take responsibility for their own learning an actions. | | | 1 | 1 | 2 |
| s. Become more open to ideas and values different from their own. | | | 3 | 1 | |
| t. Use information obtained through direct experiences in making decisions. | | | 3 | 1 | |
| u. Feel prepared to accept adult responsibilities. | | | 2 | 3 | |

| | Of Little or No Help | | | | Very Helpful |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| v. Achieve objectives in courses for which they are receiving credit (i.e., social studies, language arts, etc.). | | 1 | 2 | 1 | |
| w. Applied problem solving and decision making skills to problems in a career field | | | 3 | 1 | |
| x. Increased ability to cope with change (Adaptability). | | | 1 | 3 | |
| y. Ability to use higher level thought processes in problem solving situations. | | 1 | 2 | 1 | |
| z. Demonstrate ability to apply creative problem solving process in a career field of interest. | | | 3 | 1 | |

What factors, in your opinion, have been primarily responsible for the success of the ECC/GT program this year?

Community resource people (2)

Motivation and enthusiasm of most students

Student exposure to a wide range of situations

Student responsibility for use of their time

Students like being given greater responsibility

Having a daily bus available

Released time for staff

In your opinion, what obstacles, if any, limited the success of the ECC/GT program this year?

We tried to fill a "quota" and admitted two students who really were not ready for the program

Lack of GT training prior to ECC experience

Lack of curriculum

Inadequate opportunity for students to do research or report on projects

Lack of clarity in projects

Students enter with no experience in independent research or critical thinking skills

Student selection process still encourages high achievers who can't handle critical thinking and then drop out of the program

Lack of district level support

Inefficient use of staff time during ECC block and last of student challenge during that period

Limited possibilities for internships due to a one-period schedule

5. In what areas have your ECC/GT students made the greatest growth this year? Briefly describe and state why.

Communications with adults (2)

Seven out of 10 students feel they definitely know what career area they want to pursue as a result of explorations and internship

Self-confidence through working with adults

Accepting responsibility

Development of interpersonal relationships

Use of community resources

Career knowledge and knowledge about the world of work

6. In what areas have your ECC/GT students made the least growth this year? Briefly describe and state why.

Time management (11)

Higher level skills, because they lack the background

Independent work

Task motivation

Ability to research in a far-reaching and comprehensive fashion

Ability to synthesize from a broad-base and develop a product

7. What effects, if any, do you feel the ECC/GT program has had on the regular school program? Why?

Very little or none (2)

Some help for directed studies

Provides some community resources support

Changes student GT selection process

Effects staffing slightly

8. What effects, if any do you feel the ECC/GT program has had on the community? Why?

It gives community instructors a better awareness of what things go on in the schools (2)

Many community instructors have commented positively on both the students and program

The community has become aware of ECC as part of the curriculum

Good rapport with specific community sites

9. What changes would you suggest in the ECC/GT program for next year?

Require that students come through a directed studies experience for at least one year before entering ECC/GT

Define student projects

Have less evaluation

Develop the ECC portion such that it is challenging and provides opportunities for in-depth explorations and internships, products, quality research of several types, and development of time management skills

Put time into explaining the program to the faculty, and involving other teachers in it

Increase our expectations and support for high quality, unconventional projects and products

Increase the number of girls selected, and adapt the program to their needs

Assist students in making better use of their time and resources

Maintain areas of strength: Program diversity, planning, and affective growth, use of varied resources, student-student interdependence

10. What effect has working in the ECC/GT program had on your personal/professional growth as a teacher?

It has made me want to consider career options other than teaching

It has given me the ability to teach in a completely flexible situation

Helped me focus on students' personal growth

Forced me to develop a completely different instructional style based on student-initiated learning

It has made me very much aware of the political games played at higher administrative levels in the district and of the need to redefine our program for the benefit of the students not the administration

11. What additional services would you like to see provided by (1) career education staff (2) building administration to enhance ECC/GT program effectiveness?

(1) Maintain lay assistant and transportation (2)

Provide support for curriculum development

Continued inservice training and interschool sharing

A commitment is needed within the ECC program toward the teaching of GT students

None

(2) Continued program staffing to insure program planning and success (2)

Improved communications within the building

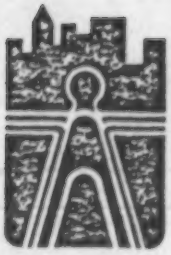
None

12. Other Comments:

The program has not improved over last year due primarily to the lack of support and leadership in the Career Education Department and the next higher level of administration

The support and service by Nancy Brown has been terrific

APPENDIX F



Parent's name (optional)_____

## ECC Parent Opinion Survey

This survey is meant to give you an opportunity to express your opinions about the Exploring Careers in the Community (ECC) program in which your son or daughter has been participating.

Most of the questions are to be answered on a scale of from 1 to 5. The phrases at the top and bottom of each set of questions indicate what the scale means. A 1 may mean something like "Definitely No", if you feel strongly that the answer to the question is no, then you should circle the 1. A 5 may mean "Definitely Yes"; if you feel strongly that the answer is yes, than you should circle the 5. The numbers in between ( 2, 3, 4) indicate an opinion somewhere in between "Definitely No" and "Definitely Yes." Some scales have different phrases, but they all work the same way.

Read the phrase above and below the numbers so you know what each scale means, then read each question and circle the number which is closest to your opinion. There are no right or wrong answers; your thoughts and feelings are the important things in this survey. The answers parents give will help determine how well the program is doing now and how to improve it in the future. Remember to circle a number for each item.

The name ECC is used throughout this survey because the same form is being filled out by parents of participating students at other locations throughout the county where this type of experience-based career education program is operating. For this survey, whenever a question or statement in the survey refers to ECC it means the particular ECC program in which your son or daughter is participating or has participated.

1. How well do you feel the ECC Program compares overall with the past school experiences of your daughter or son?

| Much Worse | | | | Much Better | MEAN | S.D. |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 4.36 | .75 |
| 0 | 0 | 2 | 5 | 7 | | |

2. If you had it to do over again, would you want your son or daughter to participate in the ECC Program?

| Definitely No | | | | Definitely Yes | 4.43 | .94 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 1 | 1 | 3 | 9 | | |

3. How well do you think your son or daughter likes or liked the ECC Program compared with past school experiences?

| Much Worse | | | | Much Better | 4.57 | .85 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 1 | 0 | 3 | 10 | | |

4. Have you received enough information about your son or daughter's progress in the ECC Program?

| Definitely No | | | | Definitely Yes | 3.07 | 1.07 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 1 | 3 | 5 | 4 | 1 | | |

5. About how often have you had any contact with any ECC Program staff members?

| Almost Never | | | | Very Frequently | 2.07 | .92 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 4 | 6 | 3 | 1 | 0 | | |

6. In comparison with regular classes how much opportunity did the ECC Program provide your daughter or son for learning about careers?

| Much Less | | About the Same | | Much More | 4.62 | .51 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 0 | 0 | 5 | 8 | | |

7. What effect, if any, has the ECC Program had on helping your son or daughter form career plans?

| Definitely Negative | | No Effect | | Definitely Positive | 4.14 | .66 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 0 | 2 | 8 | 4 | | |

8. In comparison with regular classes how much opportunity did the ECC Program provide your daughter or son for general learning. (e.g., basic skills)

| Much Less | | No Effect | | Much More | 3.79 | .80 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 1 | 3 | 8 | 2 | | |

9. In comparison with regular classes how much opportunity did the ECC Program provide your son or daughter in practical living skills. (e.g., How to balance a checkbook)

| Much Less | | No Effect | | Much More | 3.77 | .83 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 1 | 3 | 7 | 2 | | |

10. In comparison with past experiences in regular classes how motivated is or was your daughter or son to learn in the ECC Program?

| Much Less | | No Effect | | Much More | 4.43 | .65 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 0 | 1 | 6 | 7 | | |

11. Before entering the ECC Program, how often did your son or daughter talk to you about what was going on in regular classes?

| Almost Never | | | | Almost Daily | 4.14 | 1.03 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | |
| 0 | 1 | 3 | 3 | 7 | | |

12. How often does your son or daughter talk to you about what's going on in the ECC Program?

| | Almost Never | | | | Almost Daily | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 4.36 | 1.01 |
| | 0 | 1 | 2 | 2 | 9 | | |

13. How many meetings have you attended during this school year where other parents of ECC students were present?

none 1 2 3 4 5 or more

14. What do you think are the greatest weaknesses of the ECC Program? (Check any of the following which are applicable.)

6 a. Some students can't handle the freedom
2 b. Problems in the organization/staffing of the program
0 c. Students not receiving sufficient training in basic skills or practical living skills
2 d. Inadequate supervision of students on job sites
4 e. Lack of a variety of job sites to meet students' interests
0 f. Too difficult for or too much work required for some students
4 g. Participation in the program required that students sacrifice other interests (e.g., extra curricular activities)
0 h. Program was too short - long (circle one)
5 i. Students did not have adequate time on community sites
2 j. Students wern't given adequate information about program requirements
5 k. No opportunity to continue program from junior to senior high
4 l. Inadequate transportation to sites
1 m. Other: _____

15. What do you think are the greatest strengths of the ECC Program? (Check any of the following which are applicable)

7 a. Good alternative to a regular school program
8 b. Quality of the staff
12 c. Students learn about a variety of careers
10 d. Students learn about "real life" situations and responsibilities
9 e. Good way of motivating students to learn
12 f. Experience in working with adults
9 g. Students receive individual attention and have the opportunity to become involved in their own learning
11 h. Students have the opportunity to acquire a sense of independence and responsibility and the opportunity to apply decision making skills
8 i. Good way to apply school learned skills "to real life situations"
7 j. Program provides guidance in career planning
0 k. Other: _____
_____

16. What position changes, if any, have you noticed in your son or daughter that you feel are a result of participation in the ECC Program? (Check one or more of the following.)

7 a. Greater maturity or self direction
4 b. Better able to relate to others
7 c. Greater self confidence
6 d. Clearer direction about his/her future
6 e. More interested in education
6 f. Better understanding of jobs
1 g. Improvement in basic skills
4 h. More realistic attitudes towards life, work, etc.
0 i. None
1 j. Other (please write in) _____
_____

17. What negative changes, if any, have you noticed in your son or daughter that you feel are a result of participation in the ECC Program? (Check one or more of the following.)

0 a. Less interested in education
1 b. Less interested in working
2 c. More critical of others
3 d. Disappointed with the program
0 e. Unable to cope with change
1 f. Other (Please write in)_____

_____

18. What types of knowledge, skills or attitudes has your son or daughter acquired in the ECC Program that you feel he or she would not have gotten from a regular school program? (Check one or more of the following.)

10 a. First-hand knowledge of one or more businesses/occupations
8 b. First-hand knowledge of demands in a "real world"
7 c. A chance to try out some job related tasks
8 d. Working with other people
2 e. On-the-job skills
7 f. Self-discipline and responsibility
7 g. Motivation to learn
9 h. Opportunity to apply problem solving and decision making skills
0 i. Nothing
0 j. Other (please write in)_____

_____

19. What changes, if any, would you recommend in the ECC Program?

A definite change is needed to accommodate the G/T students

Parents need more information about the program and at an earlier time to allow them to decide whether their child should participate

More communication from teachers on students progress

The program would be more appropriate at senior high school

More time should be allowed for job tours

Greater variety in jobs visited

A poll of parent's occupations and their willingness to participate in the career explorations should be done

Less paperwork

Less evaluation forms

It should be extended through junior and senior high

It is an excellent program

More in-depth study of careers at employer sites



THANK YOU FOR COMPLETING THIS SURVEY